

Range Line Road Bridge (Hall Farm Bridge)
Spanning the West Branch of the
Eau Claire River, on Range Line Road
Township of Ackley
Langlade County
Wisconsin

HAER No. WI-17

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WIS,
34-ACK,
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

Historic American Engineering Record
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(Hall Farm Bridge)

HAER No. WI-17

Location: Spanning the West Branch of the Eau Claire River, on Range Line Road, Township of Ackley, Langlade County, Wisconsin

UTM: 16.323155.5005438
Quad: Antigo

Date of Construction: 1908

Builder: Wisconsin Bridge and Iron Company of Milwaukee

Present Owner: Township of Ackley, Langlade County

Present Use: Vehicular Bridge

Significance: The Range Line Road Bridge is a single span Warren truss consisting almost entirely of riveted angles. A distinctive feature is the continuous top chord that extends to the shoe, eliminating the need for a hip joint and separate endpost. In 1908, Ackley township supervisors in Langlade County agreed to raise funds to remove several decaying wooden bridges and replace them with steel structures. The following August, the Wisconsin Bridge and Iron Company of Milwaukee, Wisconsin, erected the Range Line Road Bridge over the West Channel of the Eau Claire River. J. C. Hall, a local resident, constructed the approach.

The Wisconsin Bridge and Iron Company, incorporated in 1891, erected bridges throughout Wisconsin and the Midwest. It is one of the few bridge building firms to use the continuous top chord design.

Historian: Diane Kromm
Wisconsin Historic Bridge Recording Project
Summer 1987

The township of Ackley, in Langlade County, is located in the northern part of Wisconsin, in a region where the lumber industry initiated economic development. The township's road system was not cut out until the 1880s. The area has evolved into a sparsely populated agricultural community. The West and East Branches of the Eau Claire River form the principal water courses through the township. Secondary rivers include the Black Creek and Trappe River. The surface is low and somewhat rolling.¹

In April 1908, the Ackley Township Board of Supervisors agreed to raise funds to replace two wooden bridges in disrepair with steel structures. The Langlade County Supervisors voted to assist with the project, appropriating one-half the total cost of each bridge. The chairman also appointed a special committee, consisting of Supervisors T. W. Humble and George P. Caalson, to help coordinate the undertaking. The West Branch of the Eau Claire River required a 70 foot span (\$1,600) and the East Branch needed a 120 foot span (\$3,000). The Wisconsin Bridge and Iron Company, having submitted the lowest bid, received the contract for both projects. By the end of August 1908, workers were erecting the 70-foot span, the Range Line Road Bridge, near the J. C. Hall Farm. J. C. Hall agreed to construct the approach for \$149.00. The other bridge was to be built later in the fall near the Hayner Farm.²

WISCONSIN BRIDGE AND IRON COMPANY

Frederick Weinhausen, a Milwaukee engineer, began his career working as an agent for the Penn Bridge Works. In 1886, he established himself as a bridge-builder and contractor. Two years later, he formed a joint proprietorship, under the name of Wisconsin Bridge and Iron Company, with his brother, Berthold Weinhausen, a civil engineer. Together they headed the company, alternating the positions of president and manager, until Berthold left the firm in 1900. Frederick remained actively with the company until approximately 1910, when he became president of the A. George Schultz Company, a Milwaukee brewery.³

The Wisconsin Bridge and Iron Company legally incorporated on January 23, 1891, under the joint agreement of Berthold Weinhausen, William Hinrichs, and Herman A. Wagner. With capital stock of \$100,000, the company contracted and built bridges, as well as manufactured general iron work. The Wisconsin Bridge and Iron Company initially was located in Wauwatosa, a community to the west of Milwaukee. By 1892, company officials agreed to build an extensive plant in the new suburb of North Milwaukee, to be erected by the spring of 1893. The main building 200 x 300 feet, was to be of iron the company produced. In addition to the main building, several smaller buildings were needed--including offices, paint shops, and storerooms. The company spent \$45,000 on buildings and \$40,000 on machinery. The plant continued to operate at this location until 1929, when it moved to North 35th Street in Milwaukee. In 1904, the stockholders approved, increasing the capital stock to \$300,000. Business continued to expand; six years later, company stock value increased to \$500,000. By 1936, the company was worth \$1,000,000. The Wisconsin Bridge and

Iron Company established two branch facilities in the State, in Oxford and in Antigo. The Oxford structures division manufactured farm building packages. The company became one of Wisconsin's largest structural steel fabricating firms, before it ceased operations in 1983.⁴

BRIDGE DESCRIPTION

The Range Line Road Bridge is a single-span Warren standard truss with a continuous top chord. The Wisconsin Bridge and Iron Company is possibly one of only two bridge-building firms (along with Worden-Allen) to use this unique upper chord design. The endpost is continuous without a hip-joint. The term, continuous top chord, is potentially misleading. The top chord is actually in three sections, held together by splice plates. The center top chord angles are considerably larger than those on either end. The bridge has an overall length of 61 feet with a 16-foot roadway. The bridge is composed of riveted angles, with some bolted connections. Gusset plates join the diagonals and verticals. The corrugated metal deck is hung above the bottom chord. The bridge plate identifying the date and manufacturer is missing.⁵

FOOTNOTES

- 1 Robert Dessureau, History of Langlade County, Wisconsin (Antigo: Berner Bros. Publishing Co., 1922), pp. 30, 176-177.
- 2 Langlade County, Board of Supervisors, Proceedings, 1908 (May), pp. 4-5, 9, 11; Blanche Mendl and Jerry Mendl, Pioneer History of the Township of Ackley (n.p., 1976), p. 47; Antigo Republican, 27 August 1908, p. 5, col. 3. Note: The Ackley Township Board of Supervisors Proceedings exist, but are missing.
- 3 Milwaukee City Directory, 1869-1930, listings under Frederick Weinhausen, Berthold Weinhausen, and the Wisconsin Bridge and Iron Company. Note: In 1890 Frederick Weinhausen is listed as living in San Antonio, Texas.
- 4 Wisconsin Bridge and Iron Company, Articles of Incorporation and Amendments (Corporation Division, Secretary of State, Madison, Wisconsin); Milwaukee Sentinel, 24 April 1888, p. 3, col. 4; "Ready to Begin Work," Evening Wisconsin, 24 September 1892; "New Leader At Steel Firm," 31 January 1973 (Microfilm Clipping File, under Wisconsin Bridge and Iron Company, Milwaukee County Historical Society). This last article states that the company was 102 years old in 1973. I can find no record of the firm starting in 1871 or 1870.
- 5 Barbara Wyatt, ed., "Iron and Steel Truss Highway Bridges," in Cultural Resource Management in Wisconsin, vol. 2 (Madison, Wisconsin: State Historical Society of Wisconsin, 1986), pp. 12-10. The bridge built (near the Hayner Farm) in 1907 remains, with bridge plate intact.

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(Wisconsin Department of Transportation, Madison, Wisconsin)/

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